

# MONTHLY WEATHER REVIEW.

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## INTRODUCTION.

This REVIEW contains a general summary of the meteorological conditions which prevailed over the United States and Canada during May, 1885, based upon the reports from the regular and voluntary observers of the Signal Service and from co-operating state weather services.

Descriptions of the storms which occurred over the north Atlantic ocean during the month are also given, and their approximate paths shown on chart i.

Phenomenally large masses of ice, both field and bergs, have been observed in the Atlantic during the month. On referring to the chart it will be seen that the area of the ice-region is much greater than is usual for the month of May.

The number of atmospheric depressions traced on chart i. and described under "Areas of low barometer" is seven, or two less than the average number for May during the last eleven years.

The severest local storms and tornadoes of the month were those which occurred during the prevalence of low areas v. and vi., on the 15-16th, and 24-25th, respectively.

Destructive freshets occurred in Kansas, Nebraska, and Texas, causing great damage to the growing crops and loss of stock.

As in April, the mean temperature exhibits no marked departures from the normal. The month was slightly warmer than the average in the Pacific coast districts, and slightly colder than the average in all districts east of the Rocky mountains, except in the upper Ohio valley, northern New England, and along the Atlantic coast from Virginia to Florida, where the mean temperature was normal or slightly above.

The most important features in connection with the monthly precipitation were the marked excess over the average in the south Atlantic states and the Rio Grande valley, and the large deficiency in the northern slope, extreme northwest, upper lake region, and throughout the Mississippi valley.

Temperature and rainfall observations in the cotton region were resumed May 1st. In this REVIEW will be found a table showing the means for the several districts, with the May averages for the three preceding years.

In the preparation of this REVIEW the following data, received up to June 20th, 1885, have been used, viz.: the regular tri-daily weather-charts, containing data of simultaneous observations taken at one hundred and twenty-nine Signal Service stations and sixteen Canadian stations, as telegraphed to this office; one hundred and sixty-eight monthly journals and one hundred and sixty-five monthly means from the former, and sixteen monthly means from the latter; two hundred and eighty-eight monthly registers from voluntary observers; forty-five monthly registers from United States

Army post surgeons; marine records; international simultaneous observations; marine reports through the co-operation of the "New York Herald Weather Service;" abstracts of ships' logs, furnished by the publishers of "The New York Maritime Register;" monthly reports from the New England Meteorological Society, and from the local weather services of Alabama, Georgia, Indiana, Iowa, Louisiana, Nebraska, Ohio, and Tennessee, and of the Central Pacific Railway Company; trustworthy newspaper extracts, and special reports.

## ATMOSPHERIC PRESSURE.

[Expressed in inches and hundredths.]

The distribution of mean atmospheric pressure for May, 1885, determined from the tri-daily telegraphic observations of the Signal Service, is shown by the isobarometric lines on chart ii.

The mean pressure is 29.95, or above, along the middle Pacific coast, in Oregon and Washington Territory, over a small area including portions of Georgia and South Carolina, in Nova Scotia, New England, and portions of the lower lake region and middle Atlantic states. But four stations report monthly barometric means of 30.0 or above, viz: Fort Canby, Washington Territory, and Roseburg, Oregon, 30.0; Halifax, Nova Scotia, 30.01, and Yarmouth, Nova Scotia, 30.02. An area of barometric minima is shown in southern Arizona, where the monthly barometric means are below 29.75, the lowest being 29.73 and 29.74, respectively, at Forts Grant and Thomas. In the central and southern Rocky mountain districts, Rio Grande valley, and over portions of the upper lake region and upper Missouri valley the mean pressure is 29.9, or below.

As compared with the mean pressure for the preceding month, an increase of .01 to .07 occurs in northern New England and the Maritime Provinces. In all other parts of the country the barometric means are lower than for April. The deficiency exceeds .10 in the southern plateau, upper Missouri valley, and over an area extending from the lake region to the south Atlantic and east Gulf coasts. In the remaining districts the deficiencies vary from .01 to .10.

The departures from the normal pressure are given in the table of miscellaneous meteorological data; they are also shown on chart iv. by lines connecting stations of equal departure. The pressure is above the normal over the central and southern Rocky mountain districts, and from southeastern Montana to the lower Missouri valley; along the New England coast it is normal, and in all other portions of the country it is below the normal. The departures above the normal nowhere exceed .05, and, except at Santa Fé, New Mexico, they vary from .01 to .03. The departures below the normal are .05 or less, except in the north and middle Pacific coast regions and over an area extending from the upper lakes southeastward to the Atlantic and east Gulf coasts.

The monthly barometric ranges at the various stations of the Signal Service are given in the table of miscellaneous data. In the southern portions of California and Arizona the ranges vary from .24 to .29; on the north Pacific coast, in the central Rocky mountain districts, and along the Gulf coast, they vary from .30 to .50; they exceed .70 in the Ohio valley and in the northern districts from Dakota eastward to the